D.) AMENDMENTS TO THE DRAWINGS

None.

E.) REMARKS/ARGUMENTS

This Response is filed in response to an Office Action dated July 1, 2004.

Upon entry of this Response, claims 20-21, 29-38, and 40-45 will be pending in the Application.

In the outstanding Office Action, the Examiner rejected claims 18-21 and 28-43 under U.S.C. 102(b) as being anticipated by Rigney et al. (U.S. Patent No. 6,283,714), rejected claims 18-21 and 29-43 under U.S.C. 102(b) as being anticipated by Rigney et al. (U.S. Patent No. 6,296,447), and provisionally rejected claims 18, 19 and 21 under U.S.C. 101 based on double patenting of claims of copending Application No. 10/685,637.

First Rejection under 35 U.S.C. § 102

The Examiner rejected claims 18-21 and 28-43 under 35 U.S.C. § 102(b) as being anticipated by Rigney et al. (U.S. Patent No. 6,283,714), hereinafter referred to as "Rigney '714."

Specifically, the Examiner stated that:

> "Rigney teaches a gas turbine airfoil comprising a superalloy substrate, an external surface and an internal surface defined by internal passages. The internal surface is protected by forming a diffusion aluminide protective layer with substantially no aluminum deposited on the external surface during the step of forming. The external surface is protected by an overlay protective coating with substantially no aluminum or diffusion aluminide between the overlay protective coating and the external airfoil. This is considered to meet the limitations by providing an overlay on the external surface, and an aluminide on the internal surfaces. The limitation 'any remaining portion' is considered to be similar to an optional limitation. The external surface is considered to be entirely coated by the overlay, and as stated before, has no aluminum deposited during the aluminide coating formation on the internal surface. The process by which the layers are formed is not considered to structurally define over the prior art. '[E]ven though product-by-process claims are limited by and defined by the process,

> determination of patentability is based on the product itself. The patentability of a product does not depend on its method of protection. If the product in a product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.', (In re Thorpe, 227 USPQ 964,966, Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the applicant to come forward with evidence establishing an unobvious [difference] between the claimed product and the prior art product (*In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113).
>
> Regarding claim 23, the first portion of the surface may be considered the external surface, and the second portion of the surface may be considered the internal surface. The substrate is considered to be low in aluminum content relative to the content after application of the aluminum coatings.
>
> Regarding claim 28, the coating layer may be beta phase NiAl containing 30-60 [%] Al. This is considered to overlap with the ranges of the instant claim.
>
> Claims 29-31 and 33-38 are process limitations and are not considered to provide structural distinction over the prior art.
>
> Regarding claims 19, 32, and 39-43, the article may be a turbine blade."

Applicants respectfully traverses the rejection of claims 20-21, 29-38, and 40-43 under 35 U.S.C. § 102(b). The rejection of claims 18-19, 28, and 39 are moot as these claims have been cancelled.

To begin, the examiner is reminded that "'[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." *See* Manual of Patent Examining Procedure, 8th Edition (MPEP), Section 2131.

Rigney '714, as understood, is directed to a gas turbine component having a gas turbine airfoil formed of a base metal and having an internal cooling passage therein defined by an internal airfoil surface, and an external airfoil surface. The method for preparing a coated gas turbine airfoil comprises the step of forming a diffusion aluminide protective layer at the internal airfoil surface of the internal cooling passage. The method includs depositing an overlay protective coating on the external airfoil surface of the gas turbine airfoil. Preferred protective layers comprise β-phase NiAl intermetallics containing 30 to 60 atomic percent aluminum. The diffusion aluminide protective layer at the internal airfoil surface of the internal cooling passage is preferably formed by contacting aluminum-containing compounds to the internal airfoil surface to deposit aluminum thereon, and interdiffusing the aluminum into the base metal. The aluminum and optional modifying element are applied by any operable technique, such as slurry coating, foam coating, chemical vapor deposition, organo metallic chemical vapor deposition, pack cementation, or vapor phase aluminiding. The diffusion aluminide protective layer is not present on the external airfoil surface.

In contrast, amended independent claim 20 provides a superalloy article comprising an external surface and an internal passage therein defined by an internal surface. The superalloy article further comprises a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent on at least a first portion of the external surface of the superalloy article. The superalloy article further comprises a diffusion aluminide coating on at least a portion of the internal surface and on any remaining portion of the external surface of the superalloy article, the diffusion aluminide coating applied using a aluminum vapor phase deposition process performed using a fluorine-containing activator selected from the group consisting of AlF_3, CrF_3, NH_4F, and combinations thereof, at a rate in the range of about 0.036 mols of fluorine per

ft^3/hr of transport gas to about 0.18 mols of fluorine per ft^3/hr of transport gas, at a temperature in the range of about 1350°F to about 1925°F, using a transport gas selected from the group consisting of argon, nitrogen, hydrogen, and combinations thereof, the transport gas being provided at a flow rate in the range of about 20 ft^3/hr to about 120 ft^3/hr for a period of time in the range of about 2 hours to about 10 hours.

At least one of the features recited by Applicant in independent claim 20 is not taught by Rigney '714. No new matter was added as a result of the amendment to claim 20. Claim 20 contains the limitation of a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent on at least a first portion of the external surface of the superalloy article. Rigney '714 clearly does not teach a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent. Rigney '714 clearly limits the range of the weight percent of β-NiAl to the range of 30 weight percent to 60 weight percent. (see Rigney '714, col. 5, lines 25-26) As Rigney '714 does not teach or suggest all of the limitations recited in independent claim 20, Applicant respectfully submits that Rigney '714 does not anticipate Applicant's invention as recited in independent claim 20.

Therefore, for the reasons given above, independent claim 20 is believed to be distinguishable from Rigney '714 and, therefore, is not anticipated, nor rendered obvious by Rigney '714.

In contrast, amended independent claim 21 provides a turbine engine component comprising a superalloy substrate, comprising a surface, the surface having been low in aluminum content immediately after initial manufacture of the superalloy article. The component further comprises a first aluminum-rich layer being present on a first portion

of the surface, the first aluminum-rich layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the first aluminum-rich layer of about 27 weight percent, the first aluminum-rich layer having been applied to the first portion of the surface after initial manufacture, the first aluminum-rich layer making the first portion of the surface aluminum-rich and forming an aluminum-rich surface on the first portion of the surface, with a second portion of the surface remaining low in aluminum content after the application of the aluminum-rich layer to the first portion of the surface. The component further comprises a second aluminum-rich layer being present on a second portion of the surface, the second aluminum-rich layer having been applied to the second portion of the surface after the application of the first aluminum-rich layer, the second aluminum-rich layer having been applied by exposing both the first portion of the surface and the second portion of the surface to an aluminum-rich atmosphere, such exposure depositing aluminum onto and diffusing aluminum into the second portion of the surface without the already aluminum-rich first portion of the surface undergoing a phase change and without depositing sufficient aluminum onto and sufficient aluminum into the first portion of the surface to adversely affect the coating growth potential and mechanical properties of the first aluminum-rich layer.

At least one of the features recited by Applicant in independent claim 21 is not taught by Rigney '714. No new matter was added as a result of the amendment to claim 21. Claim 21 contains the limitation of the first aluminum-rich layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the first aluminum-rich layer of about 27 weight percent. Rigney '714 clearly does not teach a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent. Rigney '714 clearly limits the range of the weight percent of β-NiAl to the range of 30

weight percent to 60 weight percent. (see Rigney '714, col. 5, lines 25-26) As Rigney '714 does not teach all of the limitations recited in independent claim 21, Applicant respectfully submits that Rigney '714 does not anticipate Applicant's invention as recited in independent claim 21.

Therefore, for the reasons given above, independent claim 21 is believed to be distinguishable from Rigney '714 and, therefore, is not anticipated, nor rendered obvious by Rigney '714.

In contrast, new independent claim 44 provides a superalloy article comprising an external surface and an internal passage therein defined by an internal surface. The article further comprises a coating layer, selected from the group of alloys consisting of β-NiAl-base, MCrAlX, and a diffusion aluminide, on at least a first portion of the external surface of the superalloy article. The article further comprises a diffusion aluminide coating on at least a portion of the internal surface and on a second shadowed portion of the external surface of the superalloy article, the diffusion aluminide coating applied using a aluminum vapor phase deposition process performed using a fluorine-containing activator selected from the group consisting of AlF_3, CrF_3, NH_4F, and combinations thereof, at a rate in the range of about 0.036 mols of fluorine per ft^3/hr of transport gas to about 0.18 mols of fluorine per ft^3/hr of transport gas, at a temperature in the range of about 1350°F to about 1925°F, using a transport gas selected from the group consisting of argon, nitrogen, hydrogen, and combinations thereof, the transport gas being provided at a flow rate in the range of about 20 ft^3/hr to about 120 ft^3/hr for a period of time in the range of about 2 hours to about 10 hours.

At least one of the features recited by Applicant in independent claim 44 is not taught or suggested by Rigney '714. No new matter was added as a result of the addition of claim 44. Claim 44 contains the limitation of a diffusion aluminide coating on at least a portion of the internal surface and on a second shadowed portion of the external surface of the superalloy article. Rigney '714 clearly does not teach a diffusion aluminide coating on a second shadowed portion of the external surface of the superalloy article. Rigney '714 clearly teaches that "the previously discussed diffusion aluminide protective layer is not present on the external airfoil surface 38 in the present approach (see Rigney '714, col. 5, lines 36-38). In addition, Rigney '714 does not teach any shadowed portion of the external surface. As Rigney '714 does not teach all of the limitations recited in independent claim 44, Applicant respectfully submits that Rigney '714 does not anticipate Applicant's invention as recited in independent claim 44.

Therefore, for the reasons given above, independent claim 44 is believed to be distinguishable from Rigney '714 and, therefore, is not anticipated, nor rendered obvious by Rigney '714.

In contrast, new independent claim 45 provides a turbine engine component comprising a superalloy substrate, comprising an external surface and an internal surface, the surface having been low in aluminum content immediately after initial manufacture of the superalloy article. The superalloy substrate further comprises a first aluminum-rich layer being present on a first portion of the external surface, the first aluminum-rich layer having been applied to the first portion of the external surface after initial manufacture, the first aluminum-rich layer making the first portion of the external surface aluminum-rich and forming an aluminum-rich surface on the first portion of the external surface, with a second shadowed portion of the external surface and the internal

surface remaining low in aluminum content after the application of the aluminum-rich layer to the first portion of the surface. The superalloy substrate further comprises a second aluminum-rich layer being present on the second shadowed portion of the external surface and the internal surface, the second aluminum-rich layer having been applied to the second shadowed portion of the external surface and the internal surface after the application of the first aluminum-rich layer, the second aluminum-rich layer having been applied by exposing both the first portion of the external surface, the second shadowed portion of the external surface, and the internal surface to an aluminum-rich atmosphere, such exposure depositing aluminum onto and diffusing aluminum into the second shadowed portion of the external surface and the internal surface without the already aluminum-rich first portion of the external surface undergoing a phase change and without depositing sufficient aluminum onto and sufficient aluminum into the first portion of the external surface to adversely affect the coating growth potential and mechanical properties of the first aluminum-rich layer.

At least one of the features recited by Applicant in independent claim 45 is not taught or suggested by Rigney '714. No new matter was added as a result of the addition of claim 45. Claim 45 contains the limitation of a second aluminum-rich layer being present on the second shadowed portion of the external surface. Rigney '714 clearly does not teach an aluminum-rich coating on a second shadowed portion of the external surface of the superalloy article. Rigney '714 does not teach any shadowed portion of the external surface. As Rigney '714 does not teach all of the limitations recited in independent claim 45, Applicant respectfully submits that Rigney '714 does not anticipate Applicant's invention as recited in independent claim 45.

Therefore, for the reasons given above, independent claims 45 is believed to be distinguishable from Rigney '714 and, therefore, is not anticipated, nor rendered obvious by Rigney '714.

Dependent claims 29-38 and 40-43 are believed to be allowably as depending from what is believed to be allowable independent claim 20 for the reasons given above. In conclusion, it is respectfully submitted that claims 29-38 and 40-43 are not anticipated nor rendered obvious by Rigney '714 and are therefore allowable.

Second Rejection under 35 U.S.C. § 102

The Examiner rejected claims 18-21 and 29-43 under 35 U.S.C. § 102(b) as being anticipated by Rigney et al. (U.S. Patent No. 6,296,447), hereinafter referred to as "Rigney '447."

Specifically, the Examiner stated that:

> "Rigney teaches a gas turbine component having an internal surface and an external surface. The internal and external surfaces may have overlay aluminum coatings and aluminide diffusion coatings. The overlay coatings are not applied at the same time as the diffusion aluminide coatings, and portions that are not to be coated may be masked. Therefore, when the internal surface is being coated, the external surface is not affected, and vice versa.
>
> The limitation 'any remaining portion' is considered to be similar to an optional limitation. The external surface is considered to be entirely coated by the overlay, and as stated before, has no aluminum deposited during the aluminide coating formation on the internal surface. The process by which the layers are formed is not considered to structurally define over the prior art. '[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of protection. If the product in a product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.', (In re Thorpe, 227 USPQ 964,966, Once the

> Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the applicant to come forward with evidence establishing an unobvious [difference] between the claimed product and the prior art product (*In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113).
>
> Regarding claim 23, the first portion of the surface may be considered the external surface, and the second portion of the surface may be considered the internal surface. The substrate is considered to be low in aluminum content relative to the content after application of the aluminum coatings.
>
> Regarding claim 28, the coating layer may be beta phase NiAl containing 30-60 [%] Al. This is considered to overlap with the ranges of the instant claim.
>
> Claims 29-31 and 33-38 are process limitations and are not considered to provide structural distinction over the prior art.
>
> Regarding claims 19, 32, and 39-43, the article may be a turbine blade.

Applicants respectfully traverses the rejection of claims 20-21, 29-38, and 40-43 under 35 U.S.C. § 102(b). The rejection of claims 18-19 and 39 are moot as these claims have been cancelled.

To begin, the examiner is reminded that "'[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)." *See* Manual of Patent Examining Procedure, 8th Edition (MPEP), Section 2131.

Rigney '447, as understood, is directed to a gas turbine component comprising a platform having a first coating on at least a portion thereof, and an airfoil extending from the platform. The airfoil has an external surface and an internal surface defining cooling passages therethrough. The airfoil comprises an airfoil shape comprising a substrate alloy,

a second coating on the external surface of the airfoil shape, the second coating being different in composition from the first coating, and a third coating on the internal surface of the airfoil shape, the third coating being different in composition from the second coating, and preferably from the first coating as well. At least a portion of the platform, preferably its underside remote from the airfoil, is coated with the first coating. At least a portion of the external surface of the airfoil is coated with the second coating that is preferably optimized for performance in an oxidation and erosion environment. The second coating is preferably an MCrAlX overlay coating. The internal surfaces of the airfoil, defined by internal cooling passages through the airfoil, are coated with an oxidation-resistant third coating material.

In contrast, amended independent claim 20 provides a superalloy article comprising an external surface and an internal passage therein defined by an internal surface. The superalloy article further comprises a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent on at least a first portion of the external surface of the superalloy article. The superalloy article further comprises a diffusion aluminide coating on at least a portion of the internal surface and on any remaining portion of the external surface of the superalloy article, the diffusion aluminide coating applied using a aluminum vapor phase deposition process performed using a fluorine-containing activator selected from the group consisting of AlF_3, CrF_3, NH_4F, and combinations thereof, at a rate in the range of about 0.036 mols of fluorine per ft^3/hr of transport gas to about 0.18 mols of fluorine per ft^3/hr of transport gas, at a temperature in the range of about 1350°F to about 1925°F, using a transport gas selected from the group consisting of argon, nitrogen, hydrogen, and combinations thereof, the transport gas being provided at a flow rate in the range of about 20 ft^3/hr to about 120 ft^3/hr for a period of time in the range of about 2 hours to about 10 hours.

At least one of the features recited by Applicant in independent claim 20 is not taught by Rigney '447. No new matter was added as a result of the amendment to claim 20. Claim 20 contains the limitation of a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent on at least a first portion of the external surface of the superalloy article. Rigney '447 does not teach a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent. Rigney '447 does not teach β-NiAlCrZr at all, only a generalized NiCrAlZr with indefinite structure (see Rigney '447, col. 6, line 2). As Rigney '447 does not teach or suggest all of the limitations recited in independent claim 20, Applicant respectfully submits that Rigney '447 does not anticipate Applicant's invention as recited in independent claim 20.

Therefore, for the reasons given above, independent claim 20 is believed to be distinguishable from Rigney '447 and, therefore, is not anticipated, nor rendered obvious by Rigney '447.

In contrast, amended independent claim 21 provides a turbine engine component comprising a superalloy substrate, comprising a surface, the surface having been low in aluminum content immediately after initial manufacture of the superalloy article. The component further comprises a first aluminum-rich layer being present on a first portion of the surface, the first aluminum-rich layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the first aluminum-rich layer of about 27 weight percent, the first aluminum-rich layer having been applied to the first portion of the surface after initial manufacture, the first aluminum-rich layer making the first portion of the surface aluminum-rich and forming an aluminum-rich surface on the first portion of the surface,

with a second portion of the surface remaining low in aluminum content after the application of the aluminum-rich layer to the first portion of the surface. The component further comprises a second aluminum-rich layer being present on a second portion of the surface, the second aluminum-rich layer having been applied to the second portion of the surface after the application of the first aluminum-rich layer, the second aluminum-rich layer having been applied by exposing both the first portion of the surface and the second portion of the surface to an aluminum-rich atmosphere, such exposure depositing aluminum onto and diffusing aluminum into the second portion of the surface without the already aluminum-rich first portion of the surface undergoing a phase change and without depositing sufficient aluminum onto and sufficient aluminum into the first portion of the surface to adversely affect the coating growth potential and mechanical properties of the first aluminum-rich layer.

At least one of the features recited by Applicant in independent claim 21 is not taught by Rigney '447. No new matter was added as a result of the amendment to claim 21. Claim 21 contains the limitation of the first aluminum-rich layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the first aluminum-rich layer of about 27 weight percent. Rigney '447 clearly does not teach a coating layer comprising β-NiAlCrZr having a weight percent of Al at a surface of the coating layer of about 27 weight percent. Rigney '447 does not teach β-NiAlCrZr at all, only a generalized NiCrAlZr with indefinite structure (see Rigney '447, col. 6, line 2). As Rigney '447 does not teach all of the limitations recited in independent claim 21, Applicant respectfully submits that Rigney '447 does not anticipate Applicant's invention as recited in independent claim 21.

Therefore, for the reasons given above, independent claim 21 is believed to be distinguishable from Rigney '447 and, therefore, is not anticipated, nor rendered obvious by

Rigney '447.

In contrast, new independent claim 44 provides a superalloy article comprising an external surface and an internal passage therein defined by an internal surface. The article further comprises a coating layer, selected from the group of alloys consisting of β-NiAl-base, MCrAlX, and a diffusion aluminide, on at least a first portion of the external surface of the superalloy article. The article further comprises a diffusion aluminide coating on at least a portion of the internal surface and on a second shadowed portion of the external surface of the superalloy article, the diffusion aluminide coating applied using a aluminum vapor phase deposition process performed using a fluorine-containing activator selected from the group consisting of AlF_3, CrF_3, NH_4F, and combinations thereof, at a rate in the range of about 0.036 mols of fluorine per ft^3/hr of transport gas to about 0.18 mols of fluorine per ft^3/hr of transport gas, at a temperature in the range of about 1350°F to about 1925°F, using a transport gas selected from the group consisting of argon, nitrogen, hydrogen, and combinations thereof, the transport gas being provided at a flow rate in the range of about 20 ft^3/hr to about 120 ft^3/hr for a period of time in the range of about 2 hours to about 10 hours.

At least one of the features recited by Applicant in independent claim 44 is not taught or suggested by Rigney '447. No new matter was added as a result of the addition of claim 44. Claim 44 contains the limitation of a diffusion aluminide coating on at least a portion of the internal surface and on a second shadowed portion of the external surface of the superalloy article. Rigney '447 does not teach any shadowed portion of the external surface. As Rigney '447 does not teach all of the limitations recited in independent claim 44, Applicant respectfully submits that Rigney '447 does not anticipate Applicant's

invention as recited in independent claim 44.

Therefore, for the reasons given above, independent claim 44 is believed to be distinguishable from Rigney '447 and, therefore, is not anticipated, nor rendered obvious by Rigney '447.

In contrast, new independent claim 45 provides a turbine engine component comprising a superalloy substrate, comprising an external surface and an internal surface, the surface having been low in aluminum content immediately after initial manufacture of the superalloy article. The superalloy substrate further comprises a first aluminum-rich layer being present on a first portion of the external surface, the first aluminum-rich layer having been applied to the first portion of the external surface after initial manufacture, the first aluminum-rich layer making the first portion of the external surface aluminum-rich and forming an aluminum-rich surface on the first portion of the external surface, with a second shadowed portion of the external surface and the internal surface remaining low in aluminum content after the application of the aluminum-rich layer to the first portion of the surface. The superalloy substrate further comprises a second aluminum-rich layer being present on the second shadowed portion of the external surface and the internal surface, the second aluminum-rich layer having been applied to the second shadowed portion of the external surface and the internal surface after the application of the first aluminum-rich layer, the second aluminum-rich layer having been applied by exposing both the first portion of the external surface, the second shadowed portion of the external surface, and the internal surface to an aluminum-rich atmosphere, such exposure depositing aluminum onto and diffusing aluminum into the second shadowed portion of the external surface and the internal

surface without the already aluminum-rich first portion of the external surface undergoing a phase change and without depositing sufficient aluminum onto and sufficient aluminum into the first portion of the external surface to adversely affect the coating growth potential and mechanical properties of the first aluminum-rich layer.

At least one of the features recited by Applicant in independent claim 45 is not taught or suggested by Rigney '447. No new matter was added as a result of the addition of claim 45. Claim 45 contains the limitation of a second aluminum-rich layer being present on the second shadowed portion of the external surface. Rigney '447 does not teach a aluminum-rich coating on a second shadowed portion of the external surface of the superalloy article. Rigney '447 does not teach any shadowed portion of the external surface. As Rigney '447 does not teach all of the limitations recited in independent claim 45, Applicant respectfully submits that Rigney '447 does not anticipate Applicant's invention as recited in independent claim 45.

Therefore, for the reasons given above, independent claim 45 is believed to be distinguishable from Rigney '447 and, therefore, is not anticipated, nor rendered obvious by Rigney '447.

Dependent claims 29-38 and 40-43 are believed to be allowably as depending from what is believed to be allowable independent claim 20 for the reasons given above. In conclusion, it is respectfully submitted that claims 29-38 and 40-43 are not anticipated nor rendered obvious by Rigney '447 and are therefore allowable.

Provisional Double Patenting Rejection

The Examiner has provisionally rejected claims 18, 19, and 21 under 35 U.S.C. § 101 as claiming the same invention as that of claims 18, 19, and 21 of copending Application No. 10/685,637. As Applicants have amended claims 18 and 19 have been cancelled and as claim 21 has been amended, Applicants submit that the provisional double patenting rejection is moot.

Amendment to the Specification

Applicants have amended paragraph [0000.1] to correct several obvious errors. As it is clear that this application is a continuation, rather than a divisional, and as it is also clear as to the identity of the parent application upon which this continuation application is based, Applicants submit that no new matter has been added as a result of this amendment.

CONCLUSION

In view of the above, Applicant respectfully requests reconsideration of the Application and withdrawal of the outstanding objections and rejections. As a result of the amendments and remarks presented herein, Applicant respectfully submits that claims 20-21, 29-38, and 40-45 are not anticipated, or rendered obvious, by Rigney '447, Rigney '714, or combinations thereof and thus are in condition for allowance. As the claims are not anticipated by the applied art in view of the applied art, Applicant requests allowance of claims 20-21, 29-38, and 40-45 in a timely manner. Applicants submit that no new matter has been added by the amendments to the claims or specification. If the Examiner believes that prosecution of this Application could be expedited by a telephone conference, the Examiner is encouraged to contact the Applicant.

The Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,
MCNEES WALLACE & NURICK LLC

Dated: October 1, 2004

Jonathan P. Miller
Reg. No. 48,483
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
Attorney for Applicants
Tel: (717) 237-5358
Fax: (717) 237-5300